

REMARKS

Independent claims 1, 9, and 17 have been amended to recite portions of the subject matter of claim 6. Claims 6 and 18 have been amended to delete the portions of the subject matter added to claims 1, 9, and 17. No new matter has been added.

The Final Office Action ("Final Office Action") mailed April 27, 2005, has been received and reviewed. Claims 1-19 are currently pending in the application. Claims 1-19 stand rejected. Applicants propose to amend claims 1, 6, 9, 17, and 18 and respectfully request reconsideration of the application as proposed to be amended herein.

The proposed amendments to claims 1, 6, 9, 17, and 18 should be entered by the Examiner because they place the application in condition for allowance. Alternatively, the amendments should be entered because they place the application in better form for appeal. Since the proposed amendments to the independent claims include reciting a portion of the subject matter of claim 6, the Examiner's previous search(es) should have included this subject matter. As such, an additional search on this subject matter should not be needed.

Finality of the Office Action

Applicants respectfully submit that the finality of the outstanding Office Action is improper and should be withdrawn because the claims are rejected under newly cited art. In the Final Office Action, the Examiner relies on a new reference, U.S. Patent No. 5,756,273 to Wang *et al.* ("Wang"), to reject the pending claims. However, Wang was only made of record in the PTO-892 submitted with the Final Office Action. As such, the instant response is Applicants' first, and only, opportunity to respond to the new rejections based on this reference. Since a final rejection is only proper after a second or subsequent action on the merits, the finality of the instant Office Action should be withdrawn. See M.P.E.P. § 706.07(a). Furthermore, "a second or any subsequent action on the merits . . . will not be made final if it includes a rejection, on newly cited art." *Id.*

The Examiner states that Applicants' Information Disclosure Statement filed on 11/22/04 prompted the new grounds of rejection, necessitating the finality of the outstanding Office Action. Final Office Action, p. 5. However, the Information Disclosure Statement did not cite Wang. Rather, it was the Examiner's PTO-892, submitted with the Final Office Action, that cited Wang. Since the Examiner relies on this new reference in the Final Office

Action, the alleged “new grounds of rejection” could not have been based on information submitted in Applicants’ Information Disclosure Statement. See M.P.E.P. § 706.07(a).

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on European Patent No. EP 1184195A2 to Wexler in View of Wang

Claims 1-8 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent No. EP 1184195A2 to Wexler (“Wexler”) in view of Wang.

Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for an obviousness rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The obviousness rejection of claims 1-8 and 17-19 is improper because the cited references do not provide a motivation to combine to produce the claimed invention.

Wexler teaches an inkjet recording element that includes thermally compliant composite particles that have a core shell structure. Wexler at paragraph [0001]. The inkjet recording element includes a support, a hydrophilic base layer, and a porous top layer. *Id.* at paragraph [0009]. The porous top layer includes a polymer binder and the thermally compliant composite particles, which have a shell of inorganic colloidal particles and a core of a thermoplastic polymer. *Id.* The thermoplastic core polymer is a polyester, an acrylic polymer, or a styrenic polymer. *Id.* at paragraph [0013]. The inorganic colloidal particles include colloidal silica, modified colloidal silica, and colloidal alumina. *Id.* at paragraph [0015].

Wang teaches a photographic element that includes a support, a light-sensitive layer, and an overcoat layer. Wang at column 2, lines 45-51. The photographic element is used in silver halide photography. *Id.* at column 1, lines 1-3, column 2, lines 34-37, and column 7, lines 9-11. At least one of the light-sensitive layer and the overcoat layer includes a

hydrophilic colloid of core/shell latex particles. *Id.* A coating composition of the light-sensitive layer or the overcoat layer includes a hydrophilic binder and polymer latex particles, which have a hydrophobic core and a hydrophilic shell. *Id.* at column 3, lines 4-13. The core is formed from ethylenically unsaturated monomers. *Id.* at column 4, lines 1-21. The shell is formed from a monomer having a carboxylic acid group. *Id.* at column 4, lines 55-57. The coating composition provides scratch, abrasion, and ferrotyping resistance to the photographic element. *Id.* at column 3, lines 30-34.

As acknowledged by the Examiner, Wexler does not teach or suggest the limitation of “a colorant-receiving layer comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, . . . wherein the hydrophilic shell comprises a latex vinyl polymer,” as proposed to be amended in claim 1. Final Office Action, p. 3. Therefore, the Examiner relies on Wang as teaching this limitation. The Examiner states that it would have been obvious to combine Wexler and Wang because “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify the color-receiving layer of Wexler by the aforementioned teaching of Wang et al. in order to have a recording medium with excellent scratch resistance and abrasion resistance.” *Id.*

To provide a motivation or suggestion to combine, the prior art or the knowledge of a person of ordinary skill in the art must “suggest the desirability of the combination” or provide “an objective reason to combine the teachings of the references.” M.P.E.P. § 2143.01. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *Id.* (emphasis in original). Applicants respectfully submit that nothing in Wexler and Wang, when combined, suggests the desirability of, or provides an objective reason for, combination to produce the claimed invention. Wexler teaches that its thermally compliant composite particles have a shell of inorganic colloidal particles and a core that includes a thermoplastic polymer. However, nothing in Wexler suggests the desirability of, or provides any objective reason for, replacing the inorganic colloidal particles with an organic material, such as a latex vinyl polymer.

Wang also does not suggest the desirability of, or provide an objective reason for, using the material of its hydrophilic shell in other core shell structures, such as in the thermally compliant composite particles of Wexler. While Wang teaches that its coating composition provides scratch, abrasion, and ferrotyping resistance to a photographic element,

Wang does not suggest the desirability of, or provide an objective reason for using ingredients of its coating composition in other media, such as in media used in inkjet printing. Furthermore, Wang does not suggest the desirability of, or provide an objective reason for, using the material of its hydrophilic shell as a replacement for inorganic colloidal particles in other core shell structures.

Since the cited references do not provide a motivation to combine to produce the claimed invention, the obviousness rejection of claim 1 is improper and should be withdrawn.

Claims 2-8 are allowable, *inter alia*, as depending from an allowable base claim.

As proposed to be amended, claim 17 recites the limitation of “forming a colorant-receiving layer on the vehicle sink layer, the colorant-receiving layer comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, . . . wherein the hydrophilic shell comprises a latex vinyl polymer.” Since claim 17 recites forming the colorant-receiving layer from a hydrophilic shell that comprises a latex vinyl polymer, claim 17 is allowable for substantially the same reasons as claim 1.

Claims 18 and 19 are allowable, *inter alia*, as depending from an allowable base claim.

Obviousness Rejection Based on U.S. Patent Application Publication No. 2003/0143344A1 to Yau *et al.* in View of Wang

Claims 1-15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0143344A1 to Yau *et al.* (“Yau”) in view of Wang. Applicants respectfully traverse this rejection, as hereinafter set forth.

Yau teaches an ink jet recording element that includes a support, a fusible, porous, image-receiving layer, and an ink-retaining layer. Yau at paragraphs [0013] and [0029]. The image-receiving layer includes non-porous polymeric particles that have a core/shell structure, which includes a polymeric hydrophobic core covered with a polymeric hydrophobic shell. *Id.* at paragraph [0013]. The ink-retaining layer contains organic and inorganic particles. *Id.* at paragraph [0029]. When ink is applied to the ink jet recording element, the ink is alleged to be rapidly absorbed. *Id.* at paragraph [0033]. The resulting image is alleged to be dry immediately after the ink jet recording element exits the printer. *Id.* at paragraph [0033]. Yau also teaches that samples printed on the ink jet recording element are fused between heated pressurized rollers. *Id.* at paragraph [0092].

The teachings of Wang are as discussed above.

As acknowledged by the Examiner, Yau does not teach or suggest the limitation of “a colorant-receiving layer comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, . . . wherein the hydrophilic shell comprises a latex vinyl polymer” as proposed to be amended in claim 1. Final Office Action, p. 4. Rather, the polymeric particles of Yau have a hydrophobic core and a hydrophobic shell. Therefore, the Examiner relies on Wang as teaching this limitation. The Examiner states that it would have been obvious to combine Yau and Wang because “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify the color-receiving layer of Yau by the aforementioned teaching of Wang et al. in order to have a recording medium with excellent scratch resistance and abrasion resistance.” Final Office Action, p. 3.

Applicants respectfully submit that nothing in Yau and Wang suggests the desirability of, or provides an objective reason for, combination. Specifically, nothing in Yau suggests the desirability of, or provides an objective reason for, using a hydrophilic shell in its polymeric particles. Therefore, Yau necessarily does not suggest the desirability of, or provide an objective reason for, using a hydrophilic shell that comprises a latex vinyl polymer. Wang also does not suggest the desirability of, or provide an objective reason for, using the material of its hydrophilic shell in other core shell structures, such as in the non-porous polymeric particles of Yau.

Since the cited references do not provide a motivation to combine to produce the claimed invention, the obviousness rejection of claim 1 is improper and should be withdrawn.

Claims 2-8 are allowable, *inter alia*, as depending from an allowable base claim.

Claim 9, as proposed to be amended, recites the limitation of “providing a fusible print medium comprising a photobase layer, a vehicle sink layer, and a colorant-receiving layer, the colorant-receiving layer . . . comprising core-shell polymer particles having a hydrophilic shell and a fusible hydrophobic core, wherein the hydrophilic shell comprises a latex vinyl polymer.” Since claim 9 recites providing the colorant-receiving layer having a hydrophilic shell that comprises a latex vinyl polymer, claim 9 is allowable for substantially the same reasons as claim 1.

Claims 10-15 are allowable, *inter alia*, as depending from an allowable base claim.

Claim 17, as proposed to be amended, recites “forming a colorant-receiving layer on the vehicle sink layer, the colorant-receiving layer comprising core-shell polymer particles

having a hydrophilic shell and a fusible hydrophobic core, . . . wherein the hydrophilic shell comprises a latex vinyl polymer.” Since claim 17 recites forming the colorant-receiving layer from a hydrophilic shell that comprises a latex vinyl polymer, claim 17 is allowable for substantially the same reasons as claim 1.

Claims 18 and 19 are allowable, *inter alia*, as depending from an allowable base claim.

Obviousness Rejection Based on Yau in View of Wang and Further in View of U.S. Patent No. 5,512,619 to DeWacker *et al.*

Dependent claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Yau in view of Wang, as applied to claims 1-15 and 17-19 above, and further in view of U.S. Patent No. 5,512,619 to DeWacker *et al.* (“DeWacker”). Applicants respectfully traverse this rejection, as hereinafter set forth.

The teachings of Yau and Wang are as discussed above.

DeWacker teaches a curing composition for concrete that provides a barrier to water vapor. DeWacker at column 1, lines 42-47. The curing composition includes an acrylic or styrene polymer latex and a polysaccharide. *Id.* at column 1, lines 52-55 and column 2, lines 20-33. A coalescing agent, such as ethylene glycol monobutyl ether acetate, 2,2,4-trimethyl-1,3-pentanediol monoisobutyrate, and dipropylene glycol monobutyl ether, is also present to provide the curing composition as a film. *Id.* at column 2, lines 40-60.

Claim 16 depends on claim 9 and, therefore, includes all of the limitations of claim 9. As discussed above, claim 9 is nonobvious in light of Yau and Wang because these references do not provide a motivation to combine to produce the claimed invention. Since DeWacker does not cure these deficiencies in Yau and Wang, claim 16 is allowable, *inter alia*, as depending from allowable claim 9.

Yau, Wang, and DeWacker also do not provide a motivation to combine to produce the claimed invention. As acknowledged by the Examiner, Yau and Wang do not teach using a coalescing agent and, therefore, necessarily do not suggest the desirability of using a coalescing agent to fuse a colorant-receiving layer of a fusible print medium. Final Office Action, p. 5. DeWacker also does not suggest the desirability of using a coalescing agent to fuse a colorant-receiving layer of a fusible print medium. While DeWacker teaches using the

coalescing agent in a curing composition for concrete, DeWacker provides no teaching or suggestion to use the coalescing agent in a colorant-receiving layer of a fusible print medium.

The Examiner states that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the coalescing agent in to colorant receiving layer of Yau et al. as modified by the aforementioned teaching of DeWacker et al. in order to have uniform continuous film.” *Id.* However, this statement by the Examiner is not an objective reason that supports combination of the cited references because the teachings of Yau and DeWacker are related to different, non-analogous arts. After reading the cited references, one of ordinary skill in the art would not be motivated to use a coalescing agent from a curing composition for concrete in a colorant-receiving layer of a fusible print medium.

Since the cited references do not provide a motivation to combine, the obviousness rejection of claim 16 is improper and should be withdrawn.

ENTRY OF AMENDMENTS

The proposed amendments to claims 1, 6, 9, 17, and 18 should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add new matter to the application. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

CONCLUSION

Claims 1-19 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

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